TK103 Vehicle Tracker
User Manual

Preface

Thank you for purchasing our products. This deliberately edited manual is to introduce the tracker with the complete technical data and the instructions showing how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Most problems could be solved through the explanations and the troubleshooting tips. Once you finish reading it, keep it handy for necessary reference. Please note that specification and information are subject to

changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

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Attention

1. Make sure to read this manual carefully before using this product.

2. Please insert the SIM card before installing, and make sure the SIM card has no password, otherwise the tracker will not work normally.

3. Please make sure that all the cables of the tracker has been connected rightly, and then connect the tracker to host power. Must not install or take down the tracker when it is power on. If you found any troubles or omissions about the connections of cables, please cut off power first, otherwise you will easily damage the tracker.

4. The tracker works in wireless communications, so please cut off the host power before your vehicles entering fuel depot and dangerous material place.

5. The tracker's work voltage is 9V-30V. Please use the tracker in the scope of work voltage.

6. The host of GPS tracker is a low-power wireless transmitter and receiver. It receives and sends radio frequency signal when it is working.

7. To avoid electromagnetic interference or uncompatible configuration, please stop using your tracker in the noticed place.

TK103 Vehicle Tracker

◆Hardware Description

1. Host Tracker

2. Start up

Put the SIM card in place and installed the tracker in the car, the red indicator is on. About 40 seconds, the unit will begin to work and acquire the GSM signals as well as the GPS signals, and the red indicator will keep flashing every 2 seconds when the GSM module is no communication. When the blue indicator is light, the unit has been located.

◆Main functions

1. Positioning and Tracking: Through the on-line Positioning Platform or the cell phone to locates at times, and get the working status. You can choose the Positioning Platform by yourself.

2. Triggering Emergency Alarm: When there is a emergency happened on the vehicle, you can put on the button and the installed unit will send out alarm to the authorized numbers.

3. Remote controlling oil and circuit: you can control the oil and circuit via the unit by SMS in anywhere and anytime.

4. Remote Monitoring: In anywhere and anytime, call the phone number in the unit, when it connects, you can monitor the sound around 5 meter.

5. Movement Alert: Send SMS to the unit to start the movement alert function. When

the vehicle is moving, the unit will send the movement alert to all authorized numbers.

6. Overspeed Alert: Send SMS to the unit to start the movement alert function. When the vehicle is overspeed, the unit will send the overspeed alert to all authorized numbers.

7. Geo-fence: Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to all authorized numbers when it breaches the district.

8. Restart the unit: send SMS to resume the default of unit.

9. Auto Track: You can set up auto track by SMS or on-line positioning platform.

10. Mileage statistics; ACC checking; cutting off power and alarm.

11. Compatible with the original anti-theft alarm: It will send SMS alarm after the original anti-theft alarm warning.

* Modify the IP and Port of Communication Protocol for different on-line positioning platform

◆Set up

1. Initialization

Send "**begin + password**" in SMS to the unit, it will reply "begin ok" and initialize all the settings. (Default password: 123456)

2. Add authorized number

Send SMS "**admin123456 13612345678".** "admin" as instruction, "123456" as password, "13612345678" as authorized number. It will reply "admin ok!".

3. Delete authorized number

Send SMS **"noadmin123456 13612345678".** "noadmin" as instruction, "123456" as password, "13612345678" as deleted number. It will reply "noadmin ok!".

4.Change the Password

Send SMS: "**password + old password + space + new password"** to change the password.For example: Send SMS "Password123456 138138". "password" as instruction, "123456"as old password, "138138" as new password. Password must be six digits. Tracker's initial password is 123456.

5. Resume the initial password

If you forget your password, you can resume the initial password 123456.

Send "**resumepassword**" to the tracker, the tracker will resume the initial password. If there is no authorized numbers, all numbers can resume initial password. If there is

already authorized numbers, only the authorized numbers can resume initial password.

6. Control Oil

Send SMS "**stopoil+password"** to control oil. For example send SMS: stopoil123456

"stopoil" as instruction, "123456"as password.

To supply the oil again, send SMS **"supplyoil+password"** to the unit. For example, send SMS "Supplyoil123456" to the tracker. "Supplyoil" as instruction, "123456" as the password.

7. Control Circuit

Send SMS "**stopelec+password"** to control circuit. For example send SMS: **"**stopelec123456".

"stopoil" as instructions, "123456" as the password.

To supply the circuit again, send SMS **"supplyelec+password"** to the unit. For example, send SMS "Supplyelec123456" to the tracker. "Supplyelec" as instruction, "123456" as password.

8. Monitor mode

There are three modes for monitor.

1) All Monitor Mode: Send SMS "**AllMonitor**" to the unit, the unit will return to this mode. In this mode, any number can monitor this unit.
2) Restrict Monitor Mode: Send SMS "**RestrictMonitor**" to the unit, the unit will return to this mode. In this mode, authorized number can monitor this unit.
3) Close Monitor Mode: Send SMS "**CloseMonitor**" to the unit, the unit will return to this mode. In this mode, all numbers can not monitor this unit.

9. Movement alert

Set up: The user can send SMS **"Move + password"** to the unit, then the unit will reply **"**move ok!" .In case of such a movement, it will send SMS "Move" along with a Geo-info to the number.

For example, send SMS "Move123456" to the unit. "Move" as instructions, "123456"as password.

Cancel: Send SMS "**nomove+password**" to deactivate the movement alert.

10. Overspeed alert

Set up: Send SMS **"speed+password+space+080"** to the unit (support the speed is

80km/h).

For example, send SMS “speed123456 080”. "speed" as instruction, "80" as limit speed, “123456”as password.

Cancel: Send SMS “**nospeed+password**” to deactivate the overspeed alert.

11. Geo-fence

Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to the authorized numbers when it breaches the district.

Set up: The user can Send SMS “**stockade + password + space + MinLatitude, MinLongitude; MaxLatitude, MaxLongitude**” to unit to set the restricted district. In case of breach, it will send SMS “stockade! + geo-info” to the authorized numbers.

For example send SMS “stockade123456 22.548123, 114.081234; 22.549123, 114.082234” to the unit.

Remark: The first latitude & longitude is coordinate of min of the Geo-fence, while the second latitude & longitude is the coordinate of the max. It will alarm one time in each setting.

Cancel: Send SMS “**nostockade + password**” to deactivate this function.

This function will be out of effect after the unit moves outside the district.

12 . Restart the tracker.

Send SMS **“reboot+password”** to the tracker. For example “ reboot123456”.The tracker will be restarted. It will reply “system will reboot...”.

13. Enquiry Positioning

Send SMS “**position”** to the unit, then the unit will send SMS with real-time longitude and latitude to the cell phone.

14. Auto track

Send SMS “**at30sum5”** to the unit, it will reply “Auto track set ok.” and report a Geo-info at 30 seconds intervals for 5 times: The max intervals is 65535 seconds. You can send **“at30sum0”** for heaps of times.

Send “ **noat123456**” to the tracker, it will reply “Cancel auto track ok.”. And the tracker will stop send messages.

15. Modes switch between “track” and “monitor”

The default mode is “track”. Send SMS “**monitor + password**” to the unit, and it will reply “monitor ok!” and switch to “monitor” mode. For example send SMS: “monitor123456”. In this mode, you can monitor tracker by call tracker card number.

Send SMS “**tracker + password**” to the unit, it will reply “tracker ok!” and restore to “track” mode. For example send SMS “tracker123456”. In this mode, you can get position SMS by call tracker.

16. Modes switch between “telephone” and “web”

Set up: Send SMS “**web + password**” to device. For example, the password is 123456. Send SMS “web123456” to the device, the device will reply SMS “set web ok”. After this, the tracker will report the GPS data to IP address.

If you want to send GPS data to telephone, you can send SMS "**telephone + password**" to device, the device will reply "set telephone ok". And then, the device will send GPS data to your telephone by SMS. (The default is sending the GPS data to the telephone)

17. Modify IP address and port

The IP address and port of the tracker can be modified and transferred data to other platform. Send SMS " **IP + ip address + PORT + port value"** to the unit. If the platform's IP address and port is 123.67.87.9 and 344, send SMS "ip 123.67.87.9port344" to the tracker. It will reply "set IP address and PORT ok.". After this, device will send GPS data to this IP and Port.

18. Set Device ID number

This command uses only for GPRS communication. Default device ID is the same. In order to identify device for platform, must set device ID for every device. Send SMS "**number + tracker ID number"** to the tracker. For example "number13612345678".

19. Set APN

In order to send GPS data to IP address, you still must set mobile network Access Point Name (APN). If you don't know the APN, you can consult local network service supplier. The format of set APN is **"APN + password +space + apn value"**. For example you send SMS "apn123456 cmnet" to the device. The device will reply SMS "Set APN ok." .

20. Set GPRS user name and password

Some country must be set GPRS user name and password for GPRS communication. The format of set GPRS user name and password is "**user + space + GPRS user name + space + GPRS password**". For example, "user name 123456", "user" is command, "name" is GPRS user name, "123456" is GPRS password. After send SMS, tracker will reply "Set GPRS User and Password ok . " .

21. Set country time zone

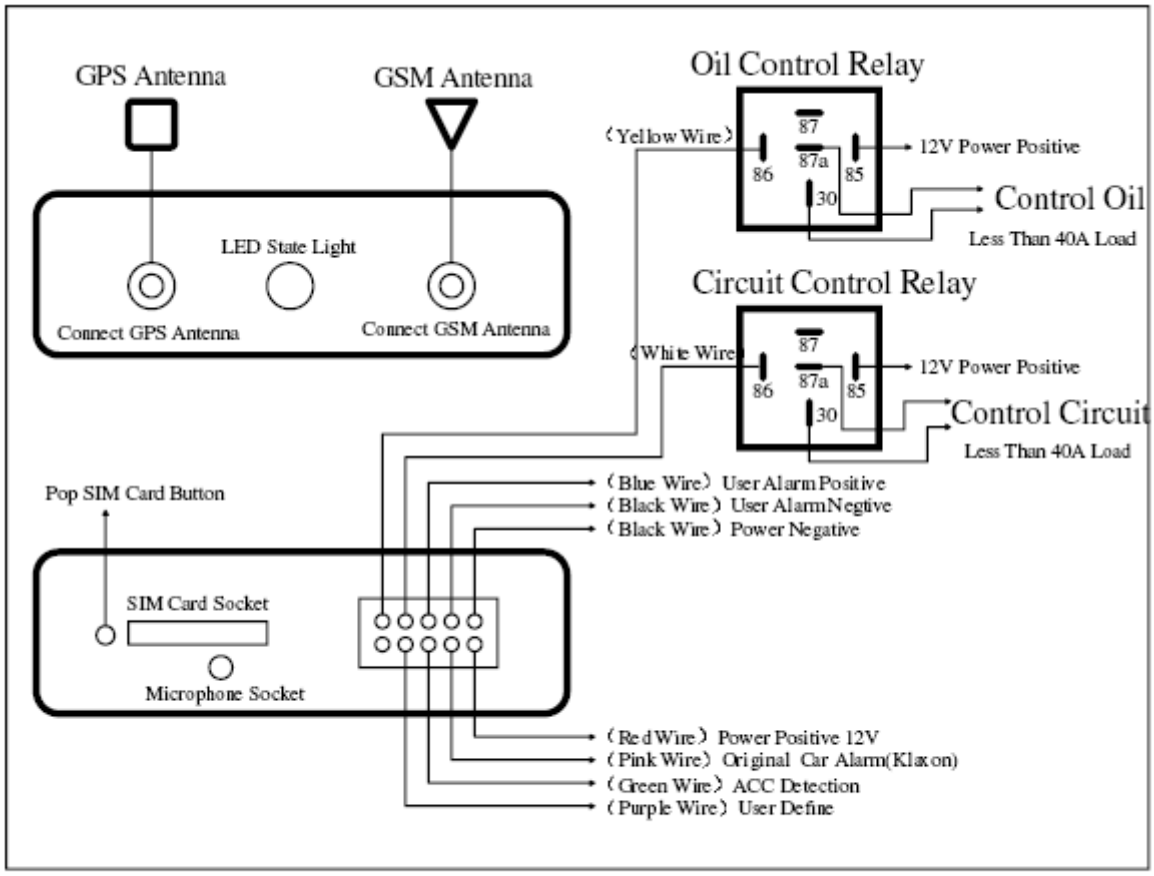
In the default, tracker reply position SMS time is UTC time. After you can set zone time, tracker will reply the time of your country. The format is "**zone + password + space + time zone value**". For example, "zone123456 8" is set east 8 time zone. Time zone value ranges from -12 to 12. One time zone stands for one hour. "zone123456 -8" is set west 8 time zone. After send SMS, tracker will reply "Set Time Zone OK.".

22. Set Web

In order to see your website in each replying Geo SMS, for example your website is

www.webs***.com, then send "**home123456 www.webs***.com**".Then it will reply "set home ok", when you want to cancel it, just send "**nohome123456**", it will reply SMS "cancel home ok".

◆Installation diagram of The Tracker



GPS Vehicle Tracker Installation Diagram

◆GPS Vehicle Tracker Installation

GPS tracker should be installed by technical professional of local service centre. Without permission, the user cann't repair and move the tracker randomly. If users do,

any unfortunated damage should be compensated by himself.

Installation steps (caution: the following installation should under no power, otherwise will be dangerous)

1.Power supply line: The red wire connects 12V "+";Black wire connects to 12V "-"

2. Wire for cutting off oil of the tracker

Yellow wire connects the relay pin 86; 85 pin connect to 12 V DC , 87a pin and 30 pin in series power supply circuits. Caution: Wrong connection of yellow wire will damage the tracker.

3. Wire for cutting off circuit of the tracker

White wire connects relay pin 86; 85 pin to 12 V DC, 87a pin and 30 pin are in series power supply circuits. Caution: Wrong connection of yellow wire will damage the tracker.

4. Emergency triggering alarm

The blue wire connects the positive of the alarm button, and the black wire connects the negative of the alarm button.

◆Application

1. Vehicle Rental/Special Tracking System
2. Finance and Insurance Business Tracking System
3. Car Commanding and Dispatching System
4. Heavy Construction Vehicles Tracking Device
5. Shipping Cargoes Tracking

◆Specs.

Content	Specs.
Dim.	87 * 64 * 26 (mm)
Weight	495g
Network	GSM/GPRS/GPS
Band	900/1800/1900MHz or 850/900/1800/1900MHz
GPS chip	SiRF III chip
GSM/GPRS Module	SIM300 or SIM340
GPS sensitivity	-159dBm
GPS accuracy	5 m

Time To First Fix	Reacquisition 0.1s Cold status 45s Warm status 35s Hot status 1s
Work Voltage	DC 9V－30V
Battery	Chargeable changeable 3.7V / 1.2Ah Li-ion battery
Standby work current	< 30mA
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +70°C
Humidity	5%--95% non-condensing

◆Command Set

No.	Function	SMS	Reply
1	Initialization	Begin123456	Begin ok
2	Add Number	Admin123456 13612345678	Admin ok
3	Delete Number	Noadmin123456 13612345678	Noadmin ok
4	Change password	Password123456 138138	Change password ok
5	Resume password	resumepassword	Resume password ok
6	Control oil	Stopoil123456	Stop oil ok
		Supplyoil123456	Supply oil ok
7	Control circuit	Stopelec123456	Stop electricity ok
		Supplyelec123456	Supply electricity ok
8	Set monitor mode	AllMonitor	Set all monitor ok
		RestrictMonitor	Set restrict monitor ok
		CloseMonitor	Set close monitor ok

9	SMS format to google map link format	Google	Google ok
10	Movement alert	Move123456	Move ok
		Nomove123456	Cancel move ok
11	Overspeed alert	Speed123456 080	Speed ok
		Nospeed123456	Cancel speed ok
12	Geo fence alert	Stockade123456 coordinate;coordinate	Set stockade ok
		Nostockade123456	Cancel stockade ok
13	Restart tracker	Reboot123456	System will reboot
14	Enquiry position	position	Geo info
15	Auto track	At30sum5	Auto track set ok
		Noat123456	Cancel auto track ok
16	Set call response	Tracker123456	Tracker ok
		Monitor123456	Monitor ok
17	Set auto track mode	Telephone123456	Set telephone ok
		Web123456	Set web ok
18	Change IP and PORT	Ip112.33.44.211port2332	set IP address and PORT ok
19	Set device id	Number13612345678	set number ok
20	Set APN	Apn123456 cmnet	Set apn ok
21	Set GPRS user name and password	User name pass	Set GPRS user name and password ok
22	Set time zone	Zone123456 8	Set time zone ok
23	Set web	Home123456 www.web.com	Set home ok